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OxyContin in Missouri

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A Policy Brief Exploring Patterns of Abuse

Prevention, Treatment and Interdiction Strategies



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Introduction

OxyContin has become a critical prescription medication for many of the fifty million Americans who suffer from chronic pain. People with chronic pain credit OxyContin with restoring their ability to live a normal life¹. Because of its time-release mechanism, it is more effective than other pain relief medication. When it is administered properly, individuals typically do not become dependent on the drug. For these reasons the continued availability of OxyContin is a critical issue.

When used improperly, OxyContin is highly addictive. Abuse rapidly escalates within a few short months, quickly leading to dependence. This pattern is noted even among people who have never before abused drugs. Thus, the central policy issue to consider regarding OxyContin is how to protect the appropriate use of OxyContin for patients who need it while also preventing abuse and diversion of the drug.

During summer 2001, the national media declared OxyContin abuse to be America's newest drug "epidemic." According to media accounts, it has spread from rural communities of Appalachia to urban and suburban settings. These reports have illustrated how OxyContin abuse can disrupt families and create unsafe communities. In light of both the potential benefits and the possible harm associated with OxyContin, many states are beginning to examine the best ways to manage the problems associated with abuse.

The purpose of this policy brief is to describe what is currently known about OxyContin, report available national and local data on OxyContin abuse, and present ideas for effective prevention and treatment of OxyContin abuse in Missouri. Some of the communities experiencing significant problems with OxyContin, such as Hazard, Kentucky, and Pulaski, Virginia, are similar in demographic and geographic terms to Missouri communities. Also, there is some evidence that abuse of OxyContin is becoming a trend in America's heartland. For these reasons, it is important that Missouri examine the prevention and interdiction models developed by neighboring states and respond proactively to this emerging problem.

¹ Reports estimate that four of ten people with moderate to severe chronic pain do not receive adequate relief. In addition, chronic pain is one of the leading causes of suicide (assisted and non-assisted).



OxyContin ®

Oxycodone is the only active ingredient found in the brand name medication OxyContin. Oxycodone, an opioid or synthetic opiate agonist,² was developed in a German laboratory in 1916. Several forms of oxycodone are available as prescription pain relievers, including Percocet, Percodan, OxyContin and Tylox. OxyContin is a pure form of oxycodone. All other brand forms are mixed with additives, or other medications such as acetaminophen or aspirin, or they are available in lower dosages of oxycodone. For example, Percocet, a very popular pain relief medication, consists of oxycodone and acetaminophen, an ingredient commonly found in cold medications. Also, Roxicodone, like OxyContin, is a pure form of oxycodone, but it is only available in 5 mg tablets or 5-20 mg oral solutions.

Purdue Pharma LP, located in Stamford, Connecticut produces OxyContin. The FDA approved it for sale in December 1995. Physicians prescribe OxyContin for moderate to severe pain caused by arthritis, bursitis, dislocations, fractures, chronic back problems, carpal tunnel syndrome, nerve damage, sickle cell disease, cancer, or injuries. It is also used to relieve coughs, diarrhea, and postoperative and post labor pain.

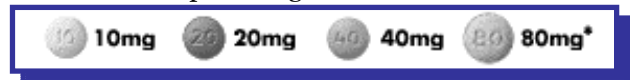
OxyContin provides sustained relief (up to 12 hours) through combined rapid and slow-release mechanisms. Pain relief begins within one hour of swallowing the pill followed by “twelve hours of smooth and reliable control” (Purdue Pharma, 2001). The slow-release mechanism works only when the drug maintains its pill form. Currently, when the pill is crushed or chewed the slow release mechanism is disabled, leading to an intense high upon ingestion. Purdue Pharma announced on December 3, 2001, that it began clinical trials of a new pharmaceutical product that combines oxycodone in a controlled-release formulation with Naloxone, an opioid antagonist that inhibits the pill’s effects (when crushed). Naloxone is used with other painkillers to neutralize euphoric effects. However, there are concerns that the use of such an agent, would create a “ceiling effect” for those who take OxyContin for pain relief, whereby the medication potency remains the same despite increases in dosage. Such an effect could limit the amount of relief it offers patients with chronic pain. Those who take OxyContin for pain on a regular basis may need to increase the dosage over time to achieve the same level of pain relief. Those with chronic pain can, therefore, successfully manage doses that would be fatal to those who have never before used this type of drug.

Quick facts: Oxycodone Products	
Brand name	Ingredients
Endodan, Oxycodan, Percodan, Percodan-Demi, Roxiprin	oxycodone + aspirin
Endocet, Oxycocet, Percocet, Roxicet, Roxilox, Tylox	oxycodone hydrochloride + acetaminophen
<div>OxyContin (controlled release)</div> <div>Roxicodone, Oxy IR , Supeudol (immediate release)</div>	oxycodone hydrochloride

² Opiate agonists² are natural or synthetic drugs that, like morphine, provide pain relief by acting on opioid receptors. Opioids attach to specific proteins called opioid receptors, which are found in the brain, spinal cord, and gastrointestinal tract. Certain opioid receptors can effectively block the transmission of pain messages to the brain. In addition, they can affect the regions of the brain that control what we perceive as pleasure (NIDA, 2001). Opiate agonists are the most effective pain relievers available and are considered the last line of defense against pain.

The strength, duration, known dosage, and potential prescription cost coverage make OxyContin attractive to both abusers and legitimate users alike. OxyContin's twelve-hour controlled release makes it the longest lasting oxycodone on the market. This feature highlights OxyContin as an important drug for those in chronic pain because it allows for better pain control and for a return to a more normal lifestyle governed less by a strict medication regimen. For example, patients taking shorter acting oxycodone products, such as Percocet, may need to take the product four to six times per day where as the number of times that a person may take prescription OxyContin are much less frequent, two to three times per day depending on the dose.

OxyContin (Oxycodone hydrochloride controlled release) is currently available in 10, 20, 40, and 80 mg tablets. OxyContin tablets are round in shape, unscored, and convex and bear the OC symbol on one side and the dosage on the other. The different pill dosages come in different colors, i.e., white (10 mg), pink (20 mg), yellow (40 mg) and green (80 mg). General street names for OxyContin are: "OC", "oxy", "oxies", "oxycotton", and "killers".



Source: Purdue Pharma, 2001

From July 2000 to May 2001, OxyContin was also available in 160 mg tablets. At that time, Purdue Pharma pulled the 160 mg tablets from distribution due to abuse concerns. Illicit users of OxyContin nicknamed the 160 mg tablets "blue bombers", "blue coffins", and "oxy-coffins" because of their color and oblong shape. Several states are pressuring Purdue Pharma to also remove the 80 mg tablet from distribution.

OxyContin Abuse

When crushed and then swallowed or snorted, or mixed with water and injected, OxyContin provides a more intense high than the cheaper street drug heroin, which offers the user similar euphoric effects. Taken improperly, OxyContin is potentially lethal. For those who have an addiction problem, have limited access to more traditional drug trafficking markets, and who reside in low-income, blue-collar communities where work-related injury is common, OxyContin has become a popular drug. For some, it has become their drug of choice.

Individuals who abuse OxyContin are at high risk for addiction. Some individuals begin their addictive relationship with OxyContin via a legitimate prescription. At some point they stop taking the drug as prescribed and begin manipulating how it is ingested (crushing the pill and snorting or injecting it) in order to obtain a high feeling. Early detection and intervention with such individuals could prevent further escalation of a substance abuse problem. Such efforts should include increased monitoring by physicians who are knowledgeable regarding addictive behavioral patterns and collaboration between physicians and addiction treatment specialists.



Although some individuals begin abusing OxyContin following prescriptive use of the drug, they more often seek it with the primary intent to abuse it. It appears that OxyContin abuse dramatically affects the progression of addiction. Those who abuse OxyContin and lose access to



it and/or who can't afford the street cost of the drug often turn to heroin for their next fix. There may also be a relationship between methamphetamine and OxyContin use. Methamphetamine users may take OxyContin to soften the negative effects experienced when a methamphetamine high ends. Rural communities where methamphetamine manufacturing and use exist may be particularly vulnerable to OxyContin-related problems. For these reasons, those persons who seek OxyContin solely to abuse it should be targeted by addiction treatment and interdiction strategies as described in the next section.

Obtaining and Trafficking OxyContin

OxyContin seems to be having the biggest impact on historically blue-collar (e.g., those with steel mills, coal mines and lumber mills), rural communities that have endured decades of social and economic decline. Many residents of these areas are impoverished, unemployed, and in poor physical health. Since OxyContin is intended to help manage the pain associated with injury and chronic illness, the high prevalence of OxyContin use in these isolated communities is not surprising.

Obtaining OxyContin

Illicit methods of obtaining OxyContin follow the standard path of other abused prescription drugs. OxyContin can only be legally accessed from individuals with prescriptions for the drug and pharmacies that distribute it; therefore, the criminal activity associated with OxyContin centers around pharmacists, doctors, and persons with chronic pain. These activities may include theft of pills from patients, older adult facilities, pharmacies, and homes, as well as theft of prescription pads from physicians' offices and subsequent prescription forgery. Dealers may act as patients for several physicians at the same time, lying about their ailments and tricking physicians into writing OxyContin prescriptions. In this manner, multiple prescriptions are obtained and pills flow into the drug market. There have also been cases in which physicians have cooperated with these schemes by providing prescriptions or the medication to known dealers. Sometimes family members work together to acquire large amounts of OxyContin to deal the substance. However, there appears to be no predominate method by which information about OxyContin abuse enters a community or by which access to OxyContin is gained; therefore, it is difficult to predict where OxyContin problems will surface next and which communities may become the next Hazard, Kentucky (a community particularly hard hit by OxyContin abuse). Also, some traffickers obtain OxyContin from Mexico and Canada, where it is often easier to access prescription drugs, and bring it into the United States.

Quick facts:

How OxyContin is obtained:

- Doctor shopping
- Fraudulent prescriptions
- Theft from pharmacies, older adult care facilities, and/or homes of persons who are legitimately prescribed OxyContin
- Organized rings of individuals & families divert and deal OxyContin
- Legitimate patients sell their prescription meds to dealers
- Improper diversion of medication by health professionals for their own use or for sale
- Foreign diversion and smuggling into the U.S.

Trafficking in OxyContin

Since the affected Midwest and Appalachian communities are located far from the network of interstate highways and urban areas where illicit drug markets flourish, access to typical "street drugs" has been limited and prescription drug abuse has flourished. Prior to the introduction of OxyContin, the levels of abused oxycodone drugs, such as Tylox, were substantially less.



Why does pain killer abuse occur so frequently in these rural settings? One reason is simply that prescription drugs are available and other street drugs are not; thus limiting the market. Another reason may be related to rural culture. In rural settings, a person may be more likely to temporarily use a family member's prescription drugs when experiencing work-related injuries. This can lead to further abuse of the drug.

There is no profile available of the typical OxyContin user or dealer; men and women of all ages abuse OxyContin. To pay for their habit, those who abuse OxyContin have participated in prostitution, aggravated robbery, and theft. In addition, family members work together (youth and adults) to obtain multiple prescriptions so they can sell OxyContin for a profit. In other cases, older adults and women receiving welfare or disability benefits live with pain and sell their pills to earn the extra income needed to pay monthly bills.

Quick facts:

Licit consumers pay as little as 12.5 cents per milligram while illicit consumers pay as much as \$1 per milligram.

Tablet Strength	Licit retail Price per Tablet	Illicit Retail Price per Tablet
10 mg	\$1.25	\$5 to \$10
20 mg	\$2.30	\$10 to \$20
40 mg	\$4.00	\$25 to \$40
80 mg	\$6.00	\$65 to \$80
160 mg*	\$14.00	unknown

* Became available 7/2000 and pulled from the pharmaceutical market in May 2001. Purdue Pharma no longer manufactures it.

Source: Cincinnati Police Department Pharmaceutical Diversion Squad, 11/2000

Health Issues Related to OxyContin Use

Opioids

OxyContin is a brand name opioid. Long-term use of opioids can result in tolerance for the drugs, meaning that users must take higher doses to achieve the same initial effects. Such use can also lead to physical dependence as the body adapts to the presence of the drug, and withdrawal symptoms occur if use is reduced or stopped. As the body is adjusting, the following side effects are commonly experienced with opioid use: constipation, nausea, sedation, dizziness, vomiting, itching, headache, dry mouth, sweating, and physical weakness. When the drug is suddenly stopped, symptoms of withdrawal become more severe and include irritability, anxiety, restlessness, insomnia, diarrhea, nausea, vomiting, cold flashes, yawning, perspiration, irregular involuntary muscle contractions, excessive tearing, excessive nasal discharge, muscle pain and a long-continued dilatation of the eye. Other symptoms that may develop include weakness, abdominal cramps, anorexia and increased blood pressure, respiratory rate, or heart rate.

Taking a large single dose of an opioid could cause severe respiratory depression that could lead to death. Opioid use is a risk factor for seizures, hallucinations, confusion, and sleep disturbances. In addition to accidental overdoses, there have been reports of suicide when persons who abuse OxyContin cannot obtain more of the drug.



Opioid abuse results in changes to the brain and central nervous system, such as decreasing or stopping the production of endorphins in the pleasure center of the brain (naturally produced opioids) or impairing the brain stem area that controls bodily functions. Opioids (such as OxyContin and heroin) act quickly to relieve painful withdrawal symptoms. Over time, the addict stops seeking pleasure from the drug but continues using it to obtain feelings of normalcy. For this reason, the addicted person finds it difficult to manage every day life without the opioid.

Health Consequences of OxyContin Abuse

Those who are in withdrawal from OxyContin experience opioid side effects. The most serious side effect associated with opioids, including OxyContin, is respiratory depression or slow breathing. As a result, overdoses of OxyContin can easily cause death. Those who abuse OxyContin and who can't afford the street cost have turned to heroin for their next fix resulting in an escalation of the addiction process.

Because the abuse of OxyContin sometimes involves injection by intravenous needles, there is a risk that those abusing OxyContin could contract hepatitis B, hepatitis C, HIV/AIDS, and/or other blood-borne viruses if contaminated needles or equipment are shared. These viruses can also pass to sexual partners. Other long-term problems associated with using drugs via intravenous needles include, collapsed veins, bacterial infections, abscesses and the infection of heart lining and valves.

Quick facts:

Health Consequences of Oxycontin Abuse:

- Dependence on OxyContin or other substances such as heroin
- Possible death of person abusing OxyContin if mixed with other drugs or taken in high doses
- Risk of contracting hepatitis B, hepatitis C and/or HIV/AIDS if contaminated needles or equipment are shared

The Response of Health Care Community to OxyContin Abuse

The American Medical Association (Albert & Adams, June 25, 2001) recently stated “physicians have been hesitant to prescribe opioids to the more than 50 million Americans who live with chronic pain because of DEA and licensure fears, and those fears are growing in light of the OxyContin controversy.” In an effort to inform policy makers about the health care community’s concerns regarding media reports of OxyContin abuse, members of the health care community and law enforcement issued a joint statement on October 23, 2001 regarding the promotion of pain relief and prevention of pain medication abuse. Since that date, at least seven additional health care organizations have supported the statement that argues that policies should protect the appropriate use of opioid pain relievers, such as OxyContin, for patients who need them while also preventing abuse and diversion of the drug. Some of the key points of this statement are summarized below. (For the complete statement, please see the *Last Acts* web site noted in the reference section.)

- Pain is under treated in the U.S. but should be aggressively treated. Effective pain management is integral to quality medical care.
- Focusing on the abuse potential of the drug is dangerous in that it could lead to false conclusions that pain relief medication does not have legitimate purposes.



- Education about the use and abuse of pain medications across service sectors and within the public will assist in better treatments for pain.

Because of the limited access to pain relief specialists³, the Academy of Family Physicians additionally argues against increasing restrictions on physicians' prescription rights for pain relief medications, including OxyContin.

The Response of Purdue Pharma LP to OxyContin Abuse

Much of the interdiction/policy effort has concentrated on the drug's maker-Purdue Pharma. Because of the recent increase in OxyContin sales, Purdue Pharma grew from 1,600 to nearly 3,000 employees in just two years (1998-2000). The company's revenues from 1996 to 2000 increased from \$55 million to \$1.14 billion. In response to OxyContin abuse, Purdue Pharma has taken the following steps:

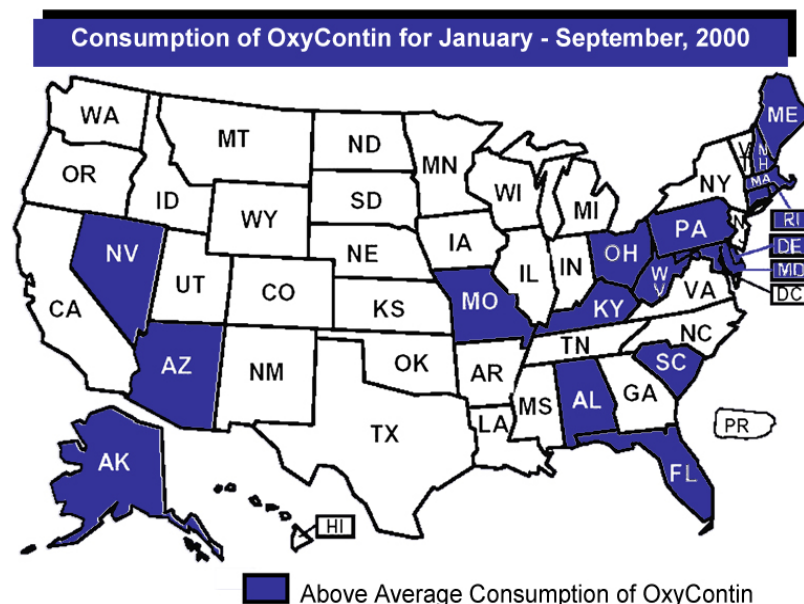
- *Purdue Pharma's Letter to Health Professionals*
In early summer 2001, Purdue Pharma issued a warning in the form of a "Dear Healthcare Professional" letter distributed to physicians, pharmacists and other healthcare professionals. The letter explained the changes to the labeling, included proper prescribing information and highlighted the problems associated with the abuse and diversion of OxyContin.
- *Purdue Pharma's Ten Point Plan*
Purdue Pharma's plan to combat OxyContin abuse focuses on prescription fraud, education, economic training, and international smuggling. To date, Purdue Pharma has offered no assistance with treatment of persons addicted to OxyContin.
- *Purdue Pharma's Physician & Pharmacist Education Program*
Purdue Pharma distributed 400,000 brochures to pharmacists and health care professionals to educate them about how to prevent diversion.
- *Reformulation of OxyContin*
Purdue Pharma reported in August 2001 that it was working on patent application for a new formula of the opiate-based drug. DEA officials question how beneficial the reformulation will be in reducing its abuse by injection or snorting (*New York Times*, October 28, 2001). The reformulated version of OxyContin won't be available until at least 2004.
- *Creation of Youth Oriented Web Site on Prevention of OxyContin Abuse*
In November 2001, Purdue Pharma launched a drug prevention web site entitled, "Painfully Obvious" that uses dramatic messages about "spastic shaking," "projectile vomiting" and "explosive diarrhea" in an effort to halt experimentation and abuse of prescription drugs among youth. (Please see the Purdue Pharma web address noted in the reference section for the "Painfully Obvious" web page.)

³ The American Board of Pain Medicine lists 1, 179 certified pain specialists in the U.S. as of 2001.

National Trends

National Datasets on OxyContin Use

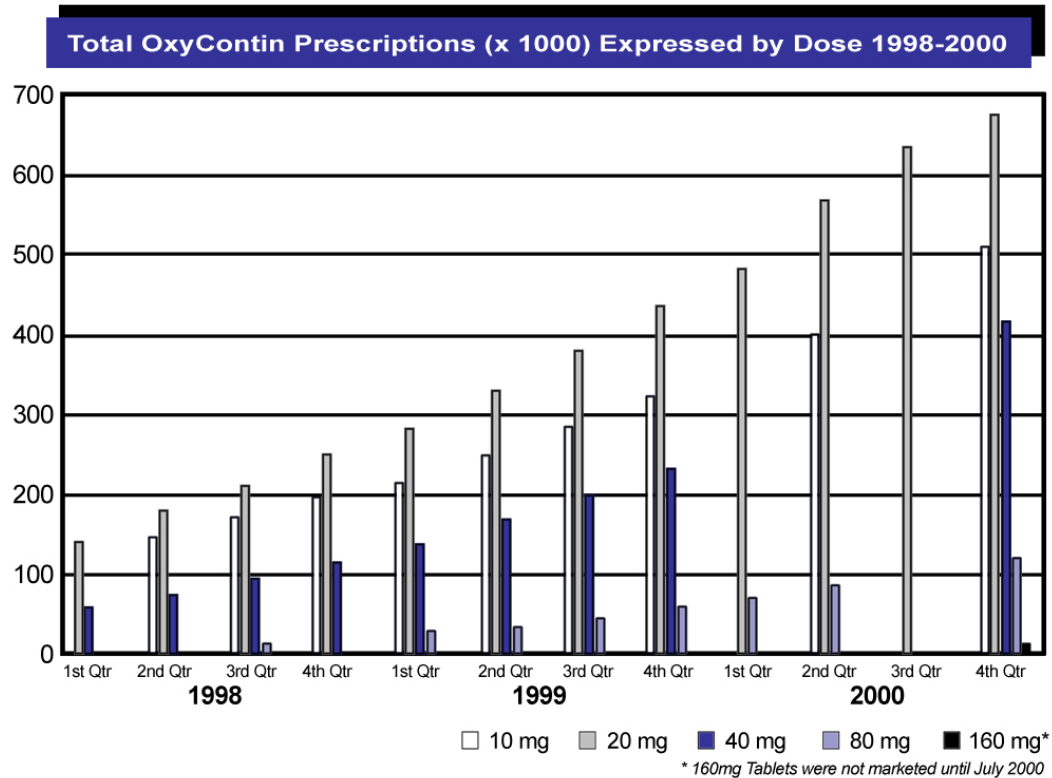
Data from the U.S. Department of Justice provide a snapshot of national OxyContin consumption. Since its introduction in 1996, the number of OxyContin prescriptions dispensed has increased 20-fold to about 6 million in 2000. In 2000, OxyContin ranked as the 18th best-selling prescription drug in the country (as measured by retail sales) and 1st among opioid painkillers. The amount dispensed between 1996 and 2000 represents an increase of over 1,800% in OxyContin prescriptions nationwide. There are several possible reasons for the growing number of prescriptions, such as: recent efforts to increase the education of physicians about pain management, new Joint Commission on Accreditation of Healthcare Organization (JCAHO) pain management standards in hospitals, differential state proportions of older adults and differential state rates of diseases that require pain management (i.e., cancer).



Map 1 Source: US DOJ, 2001; DEA, Diversion Control Program

According to the U.S. DOJ Diversion Control Program, 17 states had above-average consumption of OxyContin from January through September 2000. Missouri is one of the seventeen states listed and the only Midwestern state west of the Mississippi with above-average consumption of OxyContin during this period (see Map 1).

In addition, U.S. DOJ statistics demonstrate the dramatic increase in the number of OxyContin prescriptions over the past three years and illustrate that the 10, 20 and 40 mg tablets have been the most popular by sales during this period (see Graph 1 on page 9).



Graph 1 Source: US DOJ, 2001; IMB Health, Natural Prescription Audit Plus™

National Datasets on OxyContin Abuse

As was mentioned earlier, OxyContin is in the opiate family of drugs and consists of pure oxycodone. Current national databases that collect drug abuse information (emergency room incidents, toxic exposure and drug abuse) do not specifically track OxyContin. Instead, these national databases only provide information about abuse trends by large drug categories, either opiate or oxycodone use.

When a person enters an alcohol or drug treatment facility or emergency room with injuries related to drug use, the drug history information is collected and then categorized in the patient's chart and in national datasets by drug category. Let's consider a hypothetical patient: "Mary" enters an emergency room following an overdose and reports that she has abused OxyContin (i.e., overdose, or incorrect consumption). The attending physician or nurse may write "OxyContin" in her chart. When this information is entered into an electronic file to the institution's management information system, the data will be summarized by drug category. Therefore, the electronic file will note that Mary overdosed on opiates or oxycodone, not OxyContin. The toxicology report placed in her official records will also record her use of either opiate or oxycodone, depending on the specificity of the particular electronic charting system. Local electronic databases feed the national databases. As you can see, there is no easy way to know from this tracking system which opiate Mary ingested. Such information would necessitate that a researcher cull charts to hand tabulate data.



The following sections detail what is known about the abuse of oxycodone and OxyContin at the national level. Oxycodone abuse reports are provided to substantiate claims of escalating prescription pain relief medication abuse across the U.S. Since OxyContin is a prescription drug for pain relief, the national trends provide a context for the discussion of prevention, treatment, and interdiction strategies.

Oxycodone Abuse

Three national datasets provide information about oxycodone abuse, indicating a growing nationwide trend.

National Household Survey on Drug Abuse

The 2000 National Household Survey on Drug Abuse (NHSDA) showed that approximately 9% of the U.S. population (19.9 million people) has illegally⁴ used pain relievers in their lifetime.

This category includes non-medical use of any prescription-type pain reliever, tranquilizer, stimulant, or sedative. It does not include over-the-counter substances. Among the psychotherapeutics, pain relievers had the highest number of new users in 1999, approximately 1,469,000 persons. This number has been increasing since the mid-1980s, when there were fewer than 400,000 initiates annually (Figure 5.2). Youths aged 12 to 17 constitute the majority of this increase, from 78,000 in 1985 to 722,000 in 1999. The number of young adult initiates aged 18 to 25 increased from 166,000 to 492,000 during the same period (SAMHSA, 2001).

Drug Abuse Warning Network (DAWN)

According to the most recently available annual data (2000) published by the U.S. government's Drug Abuse Warning Network (DAWN), oxycodone in all forms was mentioned in 2% of all prescription medication-related emergency room visits in which abuse was suspected, ranking 15th on the list of 102 drugs most frequently mentioned by emergency departments; behind such well-known medications as diazepam (Valium), acetaminophen, ibuprofen, and aspirin. Despite this lower ranking, indicators used to produce the DAWN study show that the abuse of oxycodone has increased greatly in recent years. Reports from 20 metropolitan areas within the continental U.S. indicate that the number of oxycodone emergency department mentions increased from 4,857 in 1997 to 10,825 in 2000. In DAWN data, individuals who use oxycodone can be characterized as mixed gender, Caucasian, and predominately 35 years and older. The demographics regarding OxyContin are unknown.

Toxic Exposure Surveillance System's (TESS)

The Toxic Exposure Surveillance Systems (TESS) details fatalities by primary substance at the national level. The 2000 report provides information about oxycodone-related deaths but does not have specific data on OxyContin.

The increasing use and abuse of oxycodone is reflected in increasing oxycodone fatalities. In 2001, oxycodone (formulated without acetaminophen) was involved in 16 fatalities (primary substance in 11) compared with 12 deaths in 1999 (primary substance in 10). All but 2 of the oxycodone fatalities were intentional and 6 resulted from intentional abuse (TESS, p 345).

Since these deaths did not include the oxycodone/acetaminophen blend, they may reflect any of the other oxycodone products, including OxyContin.

⁴ According to the SAMHSA, NHSDA website: "The four categories of prescription-type drugs (pain relievers, tranquilizers, stimulants, and sedatives) cover numerous drugs available through prescriptions and sometimes illegally 'on the street'...Over-the-counter drugs and legitimate uses under a doctor's prescription are not included. Respondents are asked to report only uses of drugs not prescribed for them or that they took only for the experience or feeling they caused."



OxyContin Abuse

The U.S. Drug Enforcement Administration (DEA) recently announced that an extensive federal review of autopsy data by the DEA resulted in the following conclusions (US DOJ, November 1, 2001):

- OxyContin is suspected of playing a role in the overdose deaths of 282 people in the 19 months prior to the report. This number is more than twice that of previous estimates. DEA officials report about 1,010 overdose deaths involving oxycodone since January 2000. “OxyContin possible” labels were applied to 172 cases because autopsy reports showed high blood concentrations of oxycodone without the presence of other compounds such as aspirin and acetaminophen, suggesting that a pure form of the drug contributed to the deaths. “OxyContin verified” labels were applied to 110 overdoses because tablets were found in each person’s stomach or a prescription for the drug was found on each body. The DEA could not differentiate between OxyContin and oxycodone in 501 cases. The remainder, 227, had insufficient information for analysis.
- These data suggested that 14% (110 of 783) of deaths in oxycodone-positive toxicology reports were caused by an OxyContin overdose or OxyContin was a contributing factor in the deaths. An additional 22% (172 of 783) of deaths were possibly related to OxyContin.
- Few of the deaths (10 of the 282) associated with OxyContin were intravenous drug abusers, and only one person showed signs of having snorted the drug.

State and Regional Examples of OxyContin Abuse

Listed on the following page are the states (by region) most affected by OxyContin abuse to date along with examples of how OxyContin abuse is occurring in differing communities.

Summary of National Trends

From the data presented above, it is evident that national use of prescription pain relievers is increasing, including the use of OxyContin (by both licit and illicit users). Oxycodone-related emergency room incidents and fatalities are also increasing. In addition, the number of deaths directly related to OxyContin is rising. Lastly, there is some anecdotal evidence that drug treatment programs in the states that have been most severely affected are treating more cases of OxyContin abuse. This snapshot provides both a very broad image of the shift in prescription drug abuse and a very specific image of the most extreme OxyContin abuse cases (emergency illness and death). Media reports during the past six months suggest that many more people are misusing OxyContin. Given the current tracking systems and the number of drugs within each category, it is not currently possible to accurately estimate the prevalence of OxyContin abuse. The most informative source in this regard is law enforcement data on pharmaceutical thefts of OxyContin and seizures of OxyContin during arrests. In the next section, law enforcement data is provided as a framework for understanding the impact of OxyContin abuse in Missouri.

State and Regional Examples of OxyContin Abuse

Appalachia	<i>West Virginia, Pennsylvania, Kentucky, and Virginia</i>	Drug treatment programs have provided evidence of an increase in OxyContin abuse, reporting that 50 to 90 % of newly admitted patients identified OxyContin as their primary drug of abuse (DOJ, 2001).
	<i>Kentucky</i>	<p>The Pike County, Kentucky Coroner reported 19 OxyContin-related deaths during calendar year 2000. In December 2000, two Kentucky State Policemen reported seven OxyContin overdose deaths in southeastern Kentucky. The Kentucky State Police report that OxyContin is the drug of choice in eastern Kentucky, with a shift from cocaine and methamphetamine abuse to OxyContin and Tylox abuse.</p> <p>The Kentucky State Police have reported a significant shift from cocaine and methamphetamine abuse to OxyContin and Tylox abuse in Hazard, Kentucky (National Drug Intelligence Center, January 2001).</p>
	<i>Virginia</i>	In Pulaski, small community located in southwest Virginia, OxyContin has been linked to at least 43 deaths since 1997 including at least four OxyContin overdose deaths since 1998 (National Drug Intelligence Center, 2000). According to CBS News, “one-third of high school juniors and one in 10 seventh graders” in Lee County, Virginia, “say they’ve at least tried what they call Oxy’s” (April 16, 2001). OxyContin has been blamed for a significant rise in drug-related crime between January and June 2001, such as fraud, theft, and murder (<i>Washington Post</i> , 8/26/01). Most of the 1,800 drug-related crimes were related to OxyContin. This number represents one crime for every five community residents. Virginia reports OxyContin abuse surpassing marijuana abuse (DOJ, 2001).
	<i>Ohio</i>	<i>The Logan Daily News</i> reported in October 2000 that four Hocking County, Ohio, residents overdosed on OxyContin over an 18-day period. Two of the four died.
Northeast	<i>Maine</i>	The U.S. attorney, District of Maine, reports OxyContin as the “most significant drug threat in the state.” The media reported 35 deaths in Maine from OxyContin use. Purdue Pharma’s 2001 inquiries showed that of two deaths in which OxyContin was the single cause, one was a suicide. Portland, Maine, has reported a growing OxyContin problem over the past year.
	<i>New Hampshire</i>	Concord, New Hampshire, is now experiencing a rapid increase in pharmaceutical theft of OxyContin (<i>Concord Monitor</i> , October 25, 2001).
East Coast Cities	<i>Boston, MA</i>	OxyContin theft occurred at 43 Boston-area pharmacies and one nursing home.
	<i>Philadelphia, PA</i>	Philadelphia is also witnessing a rise in deaths linked to Oxycodone.



Indicators of Abuse for the State of Missouri

Why is OxyContin a Threat to Missouri?

In addition to the statewide data discussed below, there is evidence that states surrounding Missouri are having increasing problems with OxyContin. Further, some of these states have similar demographics to rural portions of Missouri. States particularly hard hit by OxyContin abuse, such as Kentucky, Ohio, and West Virginia, may have similar documented usage patterns. Their experience can serve as warnings for impending escalation of drug use in Missouri's rural areas.

Overview of State Data Sources

The data concerning OxyContin Abuse in Missouri comes from law enforcement sources (information on thefts of the drug, arrests, and regional levels of abuse), poison control center data, and OxyContin prescription purchases data.

Law Enforcement

The St. Louis office of the Drug Enforcement Administration tracks thefts of OxyContin for the State of Missouri. A review of the theft reports for each incident (covering the eastern third of Missouri) reveals that the thefts are occurring primarily at pharmacies and hospitals/clinics. However, a smaller number of pills were stolen from distributors (i.e. couriers, mail services). One theft incident was reported in 1999, 21 incidents for the year 2000, and 9 incidents for 2001 (January-August).

The DEA Tactical Diversion Squad of St. Louis reported nine arrests from late 2000 to mid-2001 for OxyContin. Suspects were exclusively Caucasian, roughly equal numbers of men and women, and 27 to 45 years old. Five of the nine obtained their OxyContin via prescription, two by theft, and two by undisclosed means. The Missouri Highway Patrol reports that the number of OxyContin tablets seized has increased from 16 in 2000 to 101 so far in 2001.

Further, the Missouri Drug Enforcement Meeting (MODEM) report from February 2001 supports the idea that OxyContin abuse is increasing in some regions of the state. The South-Central Region Drug Task Force reports a recent influx of illegal OxyContin, with users abusing it in combination with methamphetamine. The Lake Area Narcotics Enforcement Group and the Southeast Missouri Drug Task Force also report an influx of OxyContin into their areas.

Poison Control Center Data

The Missouri Regional Poison Center collects data on "information calls" and "exposure calls" regarding overdoses. Information calls are primarily calls requesting tablet identification, but can also include questions about a drug's effects. Exposure calls are mostly overdose related, but also can include calls related to children accidentally ingesting a substance or accidental double dosage.

From 1999-2001, there has been an increasing number of both information and exposure calls regarding OxyContin (*2001 data is based on year to date, projected to end of calendar year*):

- 1999, 152 information calls, 48 exposure calls.
- 2000, 192 information calls, 47 exposure calls.
- 2001, 224 information calls, 109 exposure calls.



OxyContin Prescription Purchases Data

The maker of the drug, Purdue Pharma, ranks Missouri third in the nation for purchases of OxyContin from the manufacturer, as of November 2001. This rank is up from fifth place in 2000. Other states ranking in the top ten for purchases of OxyContin include (in order from first to tenth): Alaska, Florida, West Virginia, Connecticut, New Hampshire, Nevada, Pennsylvania, Maryland, and Maine. However, since several large pharmacies that distribute medications nationwide are located in Missouri, this purchase data does not indicate that Missouri is third in the nation in sales of the drug to individual citizens.

In particular, Purdue Pharma ranks certain counties as “hot spots” based on higher than average purchases of OxyContin. In Missouri, these counties are Henry, Camden, Washington, Iron, St. Francois and St. Genevieve. Statewide prescription monitoring data also shows above average purchases in the following counties: St. Louis, Pulaski and Ripley. These counties are primarily grouped in the greater St. Louis area, as well as the central and south central regions of the state.

Finally, Missouri ranks above the nation in terms of OxyContin distribution for the years 1997-2001, with an increasing gap between the Missouri average and the national average in recent years.

Quick facts:

National and Missouri averages of grams of OxyContin distributed from 1997 to 2001 compared. Grams per 100,000 population

<i>Year</i>	<i>National Average</i>	<i>Missouri Average</i>
1997	100 grams	150 grams
1998	200 grams	400 grams
1999	400 grams	750 grams
2000	750 grams	1250 grams
2001 (Jan-March)	1250 grams	2600 grams

Source: Purdue Pharma and 2001 MODEM Survey

Statewide Survey of Drug Task Forces

To gather more detailed data on statewide OxyContin use, abuse, seizures, and arrests, a one-page survey was constructed and distributed to the thirty drug task forces that form MODEM. These task forces each represent a regional portion of Missouri and meet quarterly to coordinate and focus efforts on interdiction of illegal substances. The survey was also distributed to the Missouri State Highway Patrol, the attorney general’s office, the Missouri National Guard and the Missouri State Department of Public Safety. Of 34 surveys distributed, 15 were returned.

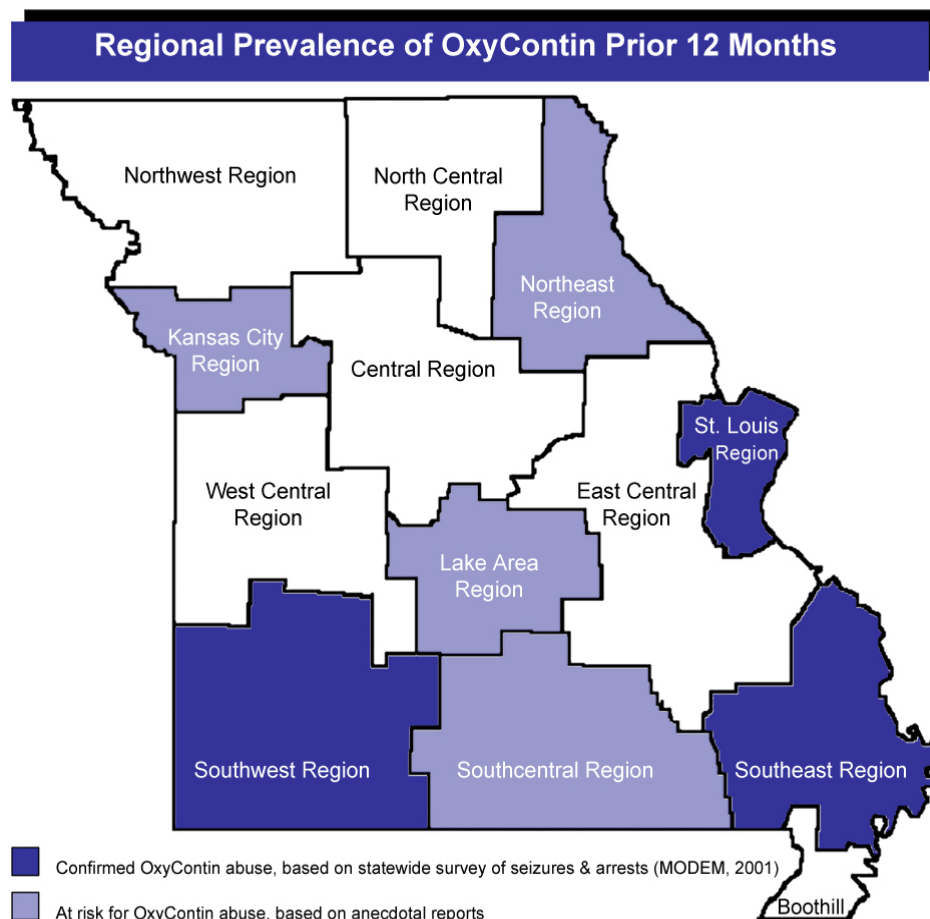
Results Aggregated for Entire State

The general findings from the statewide survey of OxyContin include:

- Statewide, the number of seizures in the past year that included OxyContin ranged from 0 to 10 in the regions represented by the drug task forces (*see Map 2 region boundaries*).
- The number of pills seized in each of these cases ranged from 1 to 400.



- In the last year, the consensus (5 of 11 respondents) was that there had been a statewide increase in OxyContin-related seizures (two respondents indicated that there had been no change in seizures of OxyContin, no respondents indicated that there had been a decrease in seizures).
- The drug most often seized in conjunction with OxyContin was methamphetamine. Marijuana and other forms of oxycodone were also mentioned.
- In terms of demographics, those most often arrested for OxyContin in Missouri were Caucasian males ages 26 to 40, though one respondent indicated that younger Caucasian males (ages 19 to 25) were the most frequently arrested.
- OxyContin is typically obtained via forged prescriptions, pharmacy thefts, fraudulent medical claims, from street dealers, and via diversion of legitimate prescriptions.
- A few respondents noted a link between OxyContin and methamphetamine abuse. One stated, *“All involved (in OxyContin abuse) were previous dopers that have been arrested for meth.”*



Map 2 Source: 2001 MODEM Survey



Regional Variations in OxyContin Abuse

The three regions of Missouri reporting the greatest amount of OxyContin Abuse are the southwest region, the southeast region, and the St. Louis metro area and its surroundings. This is somewhat consistent with national reports that place OxyContin abuse primarily in states to the east of Missouri. Thus, it seems likely that the numbers of OxyContin incidents will increase most rapidly on the eastern side of the state. However, it should be noted that the southwest region reports problems with OxyContin, and the Kansas City metro area seems to be at risk as well. Also at risk, based on anecdotal reports from drug task forces, are the northeast, south central, and lake area regions of Missouri. For example, a representative from the Northeast Task Force stated, “OxyContin is just recently becoming “known” in the drug culture in our area. I believe that the OxyContin problem will drastically escalate over the next year” (MODEM survey, 2001).

At this point, the pattern of OxyContin abuse in Missouri seems consistent with that of other states—appearing first and most heavily in rural, isolated areas where the economy is supported largely by jobs that involve physically demanding manual labor, then spreading in unpredictable patterns to other regions, including urban centers. This particularly points to risk for the Boothill region of the state, which is demographically similar to other communities hard hit by OxyContin abuse. While not reporting incidents of OxyContin seizures or arrests, the Boothill Drug Task Force does state that they are starting to get reports of individuals filling personal prescriptions and then selling them to others for abuse purposes.

Discussion

Some of the counties previously noted as “hotspots” for legal purchase of OxyContin are located in those regions that have high rates of OxyContin seizures and arrests. Arrests and seizures are also occurring in other areas of the state. Thus, the relationship between legal distribution and illicit use of OxyContin in Missouri remains unclear. Further research would be necessary to understand the relationship between OxyContin availability and abuse.

The southwest region of the state reported the greatest prevalence of OxyContin abuse in the statewide survey. Because of data reporting issues it is unclear whether there is some duplication of numbers between the Southwest Regional Task Force and the Comet Task Force (which serve geographically adjacent areas). However, this is still clearly the most affected area. As OxyContin is an emerging drug in most areas of the country, the numbers of reports are small so far. There are also reports from the southeast portion of the state and the eastern edge around the St. Louis metro area. This is consistent with national reports that most OxyContin abuse is happening in states to the east of Missouri. Thus, it seems likely that the numbers of OxyContin incidents will increase most rapidly on the eastern side of Missouri. At this point, the pattern of OxyContin abuse in Missouri seems consistent with that of other states—appearing first and most heavily in rural, isolated areas where the economy largely consists of manual labor and dangerous work, then spreading in unpredictable patterns to other regions, including urban centers.



OxyContin Prevention, Treatment and Interdiction

Prevention

Because OxyContin is such a new drug of abuse, there are no prevention models specific to its abuse. In addition to increasing general awareness among all areas of the health care industry (e.g. insurance and pharmaceutical companies), most authorities are recommending that the first line for prevention of OxyContin abuse is education of medical personnel who have daily contact with persons using and abusing OxyContin, such as general physicians, and hospital personnel. Many addicts obtained their OxyContin through local doctors. For this reason, family physician monitoring of prescriptions and referral to addiction treatment are logical steps in community prevention and treatment planning; however, many doctors from small communities remain uninformed of the dangers surrounding OxyContin abuse. Physician education should be accompanied by education of the public regarding the consequences of OxyContin abuse.

As of December 2001, no physician education protocols specific to OxyContin abuse have been published. Since OxyContin is an opioid, protocols established by the U.S. Department of Health and Human Services, Substance Abuse and Mental Health Services Administration (SAMHSA), the Center for Substance Abuse Treatment (CSAT) and the American Academy of Family Physicians can assist primary care physicians in this regard. In addition, the National Institute of Drug Abuse (NIDA) has written a research-based guide to drug addiction treatment (See sources for opioid for detoxification and treatment in reference section).

Treatment

Behavioral and pharmacological treatment models can provide a framework for the development of OxyContin treatment directives. The Center for Substance Abuse

Quick facts:

Tips for Prescribing Opioid Analgesics

1. Obtain a thorough history and perform a complete physical examination on your patients.
2. Chart everything you see, think, feel and hear about your patients.
3. Obtain informed consent so there is no doubt about the treatment proposed.
4. Get your patients to agree to use only one pharmacy.
5. If you are seeing your patients in the capacity of a primary care practitioner get a second opinion from a pain management specialist, a specialist in the involved organ system or a specialist in the overall disease process.
6. Prescribe long acting opioid analgesics on a time contingent basis so that stable levels are achieved.
7. See your patients who are receiving opioid analgesics on a regular basis.
8. Determine the minimum dose necessary to maintain function and useful activities of daily living by occasionally trying to decrease the daily dosage by 25-35%.
9. Order a urine drug screen for your patient to document that you are able to recover the prescribed medication (to rule out significant diversion) and that you are thinking about the potential use of illicit substances (things you do not prescribe).
10. Continue to receive opioid analgesic education by attending recognized meetings and conferences.

Source: Reproduced from Cole (1998)



Treatment (CSAT),⁵ whose mission is to “expand the availability of effective treatment and recovery services for alcohol and drug problems,” offers guidelines for treating OxyContin addiction, which are the same as those recommended for treatment of any opioid (SAMHSA, 2001). The most effective treatments available for opiate addiction are located in residential and outpatient settings and provide detoxification and stabilization medical treatment in addition to individualized services grounded in behavioral therapy. Research shows that this combination helps to restore a degree of normalcy to brain function and behavior, with increased employment rates and lower risk of HIV, other diseases and of criminal behavior.

Behavioral Treatments

Behavioral therapy-focused programs are commonly used for substance abuse. Those that include contingency management⁶ and cognitive restructuring⁷ interventions show particular promise as treatments for opiate addiction. In behavioral treatment, patients address issues of motivation, build skills to resist drug use, replace drug-using activities with constructive, rewarding non-drug-using activities, and improve problem-solving abilities.

Research shows that both behavioral and pharmacological treatments help to restore a degree of normalcy to brain function and behavior, resulting in increased employment rates, lower risk of HIV and other diseases, and criminal behavior.

Behavioral therapy focused programs are commonly used for addiction to all chemicals. To date, there is no reason to believe that OxyContin abusers need special programming. In behavioral treatment, patients address issues of motivation, build skills to resist drug use, replace drug-using activities with constructive and rewarding non-drug using activities, and improve problem-solving abilities. Behavioral therapy also facilitates interpersonal relationships and the individual's ability to function in the family and community (NIDA 2001). Behavioral programs typically teach three types of control for effective relapse prevention: stimulus control, urge control, and social control. Stimulus control helps the patient to avoid those people and situations associated with drug use. Urge control helps patients recognize and change thoughts, feelings, and plans that lead to drug use. Social control helps the patient create a network of support involving family and friends who can support and assist with reinforcing behavioral changes (NIDA, 2001).

Pharmacological Treatments

Due to the brain chemistry changes previously noted, detoxification of opioids is a very physically demanding and painful process. The severity of withdrawal symptoms often makes it too difficult for a person to simply quit without medical care. A gradual discontinuation of the drug (10-14 days) is recommended versus an abrupt stop (Purdue Pharma, 2001). Medications that are currently available to assist with OxyContin treatment include those used effectively to treat other opioid addictions, such as heroin. These medications (methadone, LAAM and Naltrexone) block the euphoric effects of opiates while preventing withdrawal symptoms. Most importantly, opioid blockers relieve the craving associated with opiate addiction; craving is a major reason for relapse.

Methadone maintenance has been used for 34 years and has been shown in numerous studies to be both medically safe and effective (NIDA, 2001). Properly prescribed methadone is not intoxicating or sedating. It is taken orally and it suppresses withdrawal symptoms for 24 to 36

⁵ CSAT is a division of the Substance Abuse and Mental Health Services Administration (SAMHSA) in the U.S. Department of Health and Human Services (DHHS).

⁶ Contingency management uses a voucher-based system where patients earn points for negative drug tests. Patients can then exchange these points for items that encourage healthy living.

⁷ Cognitive restructuring interventions are designed to help modify the patient's thinking, expectations, and behaviors and to increase coping skills.



hours. Patients are able to perceive pain and have emotional reactions. Research shows that, among methadone patients, normal street doses of opiates are ineffective at producing euphoria thus making the use of heroin more easily extinguishable.

LAAM (levo-alpha-acetyl-methadol) is an alternative to methadone that blocks the effects of opioids for up to 72 hours. Naltrexone is a long acting opioid blocker that counteracts the effects of opioids and is used to treat overdoses. According to NIDA, buprenorphine, another synthetic opioid will soon be available. A recent study demonstrated that LAAM, buprenorphine, and high doses of methadone (60-100 mg) were much more effective in treating heroin addiction than low-dose methadone maintenance (20 mg) (NIDA, 2001).

Since LAAM, naltrexone and buprenorphine are newer medications, most treatment effectiveness research is focused on methadone. In addition to decreasing opiate abuse, research supports the effectiveness of methadone and demonstrates a secondary impact on overall abstinence, criminality, HIV risk and mortality, and the improves social rehabilitation (Bertschy, 1995). Although research also supports the cost-effectiveness of methadone treatment for long-term patients with opioid addiction, there are problems with providing this pharmacological treatment. Many health plans offer little to no access to methadone, and many methadone providers do not comply with treatment guidelines regarding dose, duration of treatment, or provision of ancillary services (Barnett & Hui, 2000). Factors contributing to better results, include: optimal daily doses of medication, high quality medical and psycho-social services, clear orientation towards social rehabilitation and treatment retention and slow detoxification regimen of well-stabilized patients (Bertschy, 1995).

The choice of what and how medication is prescribed depends upon many factors including the individual's resources and the extent s/he is motivated for and compliant with treatment. For example, Naltrexone is used more often with individuals that are employed, married, stabilized on low-dose methadone prior to detoxification or detoxified from their opiate dependency seven or more days previously and are highly motivated to be maintained on a non-opiate chemotherapeutic agent. Detoxification plans should be coordinated with duration of use.

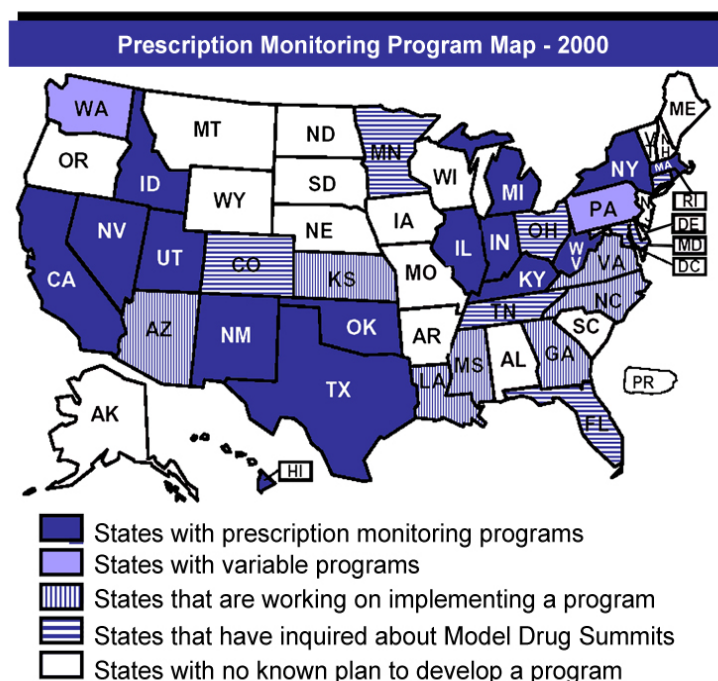
Interdiction

OxyContin is a controlled substance in Schedule II of the Federal Controlled Substances Act (CSA) that is administered by the Drug Enforcement Administration (DEA). Schedule II provides the maximum amount of control possible under the CSA for approved drug products.

The largest single group prescribing OxyContin is family physicians, accounting for 21% of the total. Some doctors have been tricked into prescribing OxyContin to patients who misrepresent themselves as having back pain. These patients then send others to the same doctor for prescriptions. In this manner, the doctor becomes an unwitting participant in the sham. Others profit financially by increased office visits and reimbursement from insurance companies. The DEA is aggressively targeting physicians who over-prescribe OxyContin. Fearing reprisals from the DEA, doctors in many states have refused to prescribe OxyContin, even to patients that are clearly in need of the medication. Some doctors have switched their patients to prescriptions that are somewhat harder to abuse but less effective, such as Fentanyl patches and morphine.

A prescription monitoring system is one way to address this problem and help protect innocent physicians from fraud by tracking what prescriptions each person is receiving and reducing the likelihood of multiple prescriptions for one drug via doctor shopping. Prescription monitoring programs can take many forms with a variety of strategies meant to restrict access to scripts by illicit users. These strategies include the creation of tamper-resistant prescription pads, multiple-copy prescription programs, required pre-approvals through a state or city agency for receipt of

Sixteen states currently operate state prescription monitoring programs (CA, HI, ID, IL, IN, KY, MA, MI, NV, NM, NY, OK, RI, TX, UT, and WV). In addition, two states operate a variable program (PA & WA) (see Map3). Five states are currently participating in a federal prescription monitoring pilot program aimed at stopping OxyContin abuse. Five states with the lowest number of per capita OxyContin prescriptions all have long-standing prescription monitoring programs in place⁸. These five states, beginning with the fewest per capita prescriptions for OxyContin, are California, Illinois, New York, Texas, and New Mexico. The majority of states reporting significant abuse and diversion issues are those without such programs or are neighbored by states without programs. Problems also exist when neighboring states do not utilize a similar system and drug traffickers and abusers fill prescriptions in border towns. Efforts are being made to coordinate prescription monitoring system in adjacent states. In July 2001 Pulaski, Virginia, began to require invisible chemical fingerprinting at the area's six pharmacies for OxyContin prescriptions. As of June 27, 2001, 240 doctors in Pennsylvania had begun using the pads that are awaiting approval by the state Boards of Pharmacy in New Jersey and Delaware. Purdue Pharma LP has also provided tamper-resistant prescription pads to doctors in Maine, Rhode Island, and Massachusetts.



Map 3 Source: *US DOJ, April 2000: DEA: Diversion Control Program*

Other interdiction approaches include the use of bulletproof glass in pharmacies, removing the drug from certain pharmacies, discontinuing Medicaid payment for OxyContin, working with doctors to find alternative pain-management strategies for their patients, and educational programs⁹. Six states (FL, ME, VT, WV, OH, and SC) have introduced regulations that make it harder for Medicaid recipients to receive OxyContin. Finally, there is some discussion of increasing penalties for OxyContin abuse/trafficking.

⁸ High numbers of per capita OxyContin do not necessarily indicate high levels of illicit use. As stated previously, efforts to increase pain management services, as well as differential state proportions of older adults and differential state rates of disease that require pain management are plausible explanations for high consumption levels.

⁹ The health care community has expressed concern about implementing interdiction strategies that limit the physician's ability to effectively manage pain for all patients.



In July 2001, the FDA strengthened the warning and precaution sections in the labeling of OxyContin. The new labeling is intended to change prescription practices as well as increase physicians' focus on the potential of abuse, abuse, and diversion. Changes include a "black box warning", the strongest type of warning for an FDA-approved drug in an effort to decrease the chance that the drug will be inappropriately prescribed for conditions that are not consistent with those of a Schedule II drug. Congress has directed the DEA to submit a report no later than November 1, 2002, that outlines a coordinated strategy and distribution of resources for tackling the OxyContin problem.

Examples of Affected States' Responses

To date, at least fourteen states have experienced increased abuse and diversion of OxyContin. In response to growing national concern over OxyContin abuse, the affected states are responding to the problem in a variety of ways. Below there is a listing of states that seem to be the most

<i>State</i>	<i>Action Taken</i>
<i>Kentucky</i>	Kentucky's Governor Paul Patton created a statewide OxyContin task force, comprising 15 separate agencies. Kentucky is now encouraging other states to implement prescription tracking databases (KASPER).
<i>Maine</i>	The Maine attorney general's office has proposed legislation that would make possession of a large number of OxyContin tablets a felony; such possession is currently a misdemeanor.
<i>Massachusetts</i>	A state task force is exploring how to lower pharmaceutical inventories of OxyContin in nursing homes.
<i>Vermont</i>	Vermont stopped providing coverage of OxyContin for people enrolled in its general assistance welfare program. Governor Howard Dean encouraged pharmacies to stop stocking OxyContin on their shelves.
<i>Virginia</i>	On March 1, 2001, Virginia Attorney General Mark Earley invited attorneys from seven states (OH, KY, IN, WV, MD, TN and PA) to a meeting in Richmond, Virginia, to discuss a collaborative response and consider using an electronic prescription monitoring system throughout the region.
<i>West Virginia</i>	West Virginia's governor announced in June 2001 that he was suing Purdue Pharma, the manufacture of OxyContin for irresponsibly marketed the drug. The governor cited the short length of time the drug has been on the market and the sharp rise of abuse as evidence of the company's irresponsibility.



affected by OxyContin abuse to date, along with examples of the action taken by state authorities.

Policy Recommendations

In addition to education of the public and those professionally affected by the consequences of OxyContin abuse, there is a need to develop patient monitoring programs and expand addiction treatment services, particularly opioid detoxification and treatment. Patients at greater risk for addiction should receive smaller quantities of pain medication and frequent reassessment of pain levels. In addition, thorough assessment and monitoring of possible addiction among those receiving pain-management services are essential. Such efforts should include gathering a history of dependence, as well as assessing the patient's current psychological and social circumstances that place him/her at risk for the development of drug addiction. While these services might be best provided in settings that specialize in pain management, there is an inadequate number of specialists available nationwide. Attention must also be focused on training general physicians in this area. Increased cooperation between professionals who specialize in pain management and substance dependence is also needed. For those who require addiction treatment, lack of access to treatment facilities in isolated rural communities provides a sometimes insurmountable barrier to recovery. Even when treatment is available, not all facilities are equipped to monitor opioid withdrawal. More addiction programs with opioid detoxification and treatment components and easier access to services for residents are needed in rural and isolated communities. These programs should provide residential and outpatient services utilizing behavioral therapy and short-term pharmacological support during detoxification and stabilization. Current treatment data-collection mechanisms (law enforcement, emergency rooms, and treatment programs) should be altered to allow for the tracking of specific drugs rather than drug families.

These recommendations would be best addressed through a coordinated state response to the emerging problem of OxyContin abuse. Each state agency and institution should consider what their role could be in regard to educating and treating Missouri citizens, as well as, halting the criminal behavior associated with prescription drug abuse. For example, drug task force officers could create a plan to inform local pharmacies about how to protect themselves from OxyContin related crime. Also, State medical schools and others who educate the helping professions (i.e., social workers, nurses, and counselors), could create a plan to educate their students on addiction, detoxification and treatment emphasizing those drugs which are known to be abused by Missouri citizens. Such efforts are necessary to ensure that the emerging problem of OxyContin abuse will be addressed in a comprehensive manner.

State of Missouri Policy Recommendations:

- 1. Educate the general public and those professionally affected by the problem:**
 - Encourage balanced media exposure .
 - Develop and implement a plan to increase awareness among the health care industry (i.e., pharmaceutical and medical associations).
 - Develop and implement an educational program specifically for primary care physicians and hospital personnel on pain management and addiction, and opioid detoxification and treatment protocols.
 - Provide information on OxyContin to DEA training programs for state and local law enforcement and regulatory agencies.
- 2. Increase access to addiction service for all Missouri citizens:**
 - Expand addiction treatment services to rural areas with increased availability of residential and outpatient treatment services and expertise in opiate detoxification and treatment services.
 - Collaborate with state health departments to develop and implement a plan to encourage coordination between general physicians supervising pain management and substance abuse treatment providers.
- 3. Increase coordination of diversion efforts with neighboring states**
 - Develop and implement a prescription monitoring program in collaboration with surrounding states.
- 4. Assess and monitor OxyContin use at the state level**
 - Continue to monitor state-funded treatment intake measures and databases to track OxyContin use, arrests, and emergency room contacts.
 - Develop and implement a plan to encourage further research on the community effects of OxyContin use.

Conclusion

The goal across prevention, treatment and interdiction approaches to managing OxyContin is to decrease illegal use and unhealthy behaviors while preserving access for those who depend on the drug for management of long-term pain. General education, expanded addiction treatment services, coordination of diversion efforts and more research with better data-monitoring systems are needed so that our prevention, treatment, and interdiction systems can track how OxyContin is affecting Missouri communities and allow practitioners, researchers, and policymakers to respond in a coordinated and comprehensive manner to this emerging drug problem.

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Website Author	Focus of Web Page	Web Address	Type of OxyContin Information					
			General	Legal	Medical	Policy/ Legislation	Research	Treatment
Purdue Pharma (manufacturer of OxyContin)	Homepage	http://www.purduepharma.com/	✓					✓
	Medication summary	http://www.pain.com/painexpo/exhibits/purdue/oxycotin.cfm			✓			
	Manufacturers public responses to concerns about OxyContin	http://www.purduepharma.com/news/default.htm				✓		
	Educational materials about opiate abuse	http://www.painfullyobvious.com/#	✓		✓			✓
U.S. Department of Health & Human Services, National Institute on Drug Abuse (NIDA)	Homepage	http://www.nida.nih.gov/			✓			
	General prescription drug abuse information including pain medications	http://165.112.78.61/drugpages/prescription.html	✓		✓			✓
U.S. Department of Health & Human Services Substance Abuse and Mental Health Services Administration (SAMHSA)	Drug Abuse Warning Network Reports (DAWN)	http://www.samhsa.gov/oas/dawn.htm					✓	
	General information on OxyContin	http://www.fda.gov/cder/drug/infopage/oxycotin/oxycotin-qa.htm	✓					
USDHHS, SAMHSA: Center for Substance Abuse Treatment (CSAT)	Treatment & Detoxification Protocols (See OxyContin Advisory link under “Web Resources”)	http://www.samhsa.gov/centers/csat/csat.html			✓			✓
USDHHS, SAMHSA: National Clearinghouse for Alcohol and Drug Information (NCADI)	National Household Survey on Drug Abuse Reports	http://www.health.org/govstudy/bkd376/					✓	



Website Author	Focus of Web Page	Web Address	Type of OxyContin Information					
			General	Legal	Medical	Policy/ Legislation	Research	Treatment
US Department of Justice, Drug Enforcement Administration	Congressional testimony on OxyContin	http://www.usdoj.gov/dea/ http://www.usdoj.gov/dea/pubs/cngrtest/cto82801.htm				✓		
US Department of Justice, Drug Enforcement Administration, Diversion Control Program	Interdiction Plans, Policy recommendations	http://www.deadiversion.usdoj.gov/index.html	✓	✓		✓	✓	
US Department of Justice, National Drug Intelligence Center (NDIC)	Information about diversion and abuse of OxyContin and the impact of abuse, particularly in the eastern U.S.	http://www.usdoj.gov/ndic/pubs/651/		✓		✓		
U.S. Food and Drug Administration Center for Drug Evaluation and Research	Information about the warnings and precautions sections in the labeling of OxyContin	http://www.fda.gov/cder/drug/infopage/oxycontin/default.htm			✓			✓